

terrestrial systems. To analyze the sharing situation in these cases, LQP contracted with Comsearch to consider the impact of LQP feeder link operations on numerous terrestrial systems in the United States. The results of Comsearch's analysis, discussed in Section 3 of the Technical Appendix, and contained in Attachment 12, demonstrate conclusively that in numerous C and Ku-band frequencies allocated to the FSS as well as to terrestrial services, GLOBALSTAR feeder link earth stations could be sited in such a manner as to avoid harmful interference to fixed service operations.

The analyses addressed sharing with Fixed Service, including Operational Fixed, Auxiliary Broadcast, Cable Television Relay Service, Electronic Newsgathering and others. Comsearch's extensive database of terrestrial systems and their characteristics enabled a far more thorough assessment of such sharing situations than has ever been undertaken.

LQP believes that the information provided herein provides a substantial record on which the Commission can make findings concerning the feasibility of LEO MSS feederlinks operating co-frequency with other services, sufficient to enable the Commission to proceed with the identification of appropriate feederlinks below 15 GHz for the Globalstar system.

F. Use of Reverse-Band Working Eliminates
LEO/GSO Sharing Concerns.

The Commission expressed concern that, when LEO satellites operate in the same bands as GSO satellites, antenna beam

coupling could cause undue interference into the GSO satellites, thereby necessitating overly stringent coordination techniques on the LEO systems. NPRM, ¶ 72. LQP believes that the issue of antenna beam coupling between LEO and GSO satellites can be virtually eliminated by reverse band operations. Use of FSS allocations in the reverse-band mode should be employed before consideration of either geographic exclusion zones or dedicated frequency allocations for LEO satellite feeder link use. Furthermore, in light of the potential benefit of reverse-band operation, the Commission should reconsider its comment "that it does not appear feasible to seek to implement LEO feeder links in bands that are heavily used by GSO systems. Coordinating a LEO system with every GSO satellite throughout the world would simply be too burdensome." NPRM, at 37 n.115. LQP believes that this statement fails to take account of the feasibility of using RBW in FSS bands.

G. The Commission Should Not Attempt to Place all the LEO MSS Feeder Links in the 20/30 GHz Band.

In order to enable the LEO MSS systems to implement their system designs, architecture and business plans, the Commission should make available feeder links in a variety of frequency bands. The requirements for LEO MSS feeder links, new fixed-satellite systems, and the proposed Local Multipoint Distribution Service (LMDS) will make it impossible for the Commission to locate all LEO MSS feeder links in the 20/30 GHz band despite the Commission's expectations. See NPRM, ¶ 77.

There may simply too little bandwidth available at Ka-band. The combined feeder link requirements for LEO MSS systems if located at 20/30 GHz are likely to exceed 1200-1600 MHz in each direction. For example, if required to use feeder links in the 20/30 GHz, LQP's GLOBALSTAR system would require approximately 400 MHz of feeder link spectrum in each direction, on a dedicated basis. This is at least twice the bandwidth GLOBALSTAR needs at C or Ku-band.

LQP discussed this issue at length in its comments on the Commission's proposed Negotiated Rulemaking addressing sharing between FSS, MSS feeder links and the Local Multipoint Distribution Service (LMDS) at 28 GHz.⁵⁷ In its submission, LQP explains that its feeder link requirements, if its feeder links are located in the C or Ku-band, are on the order of 200 MHz in each direction. This bandwidth requirement assumes that LQP will be able to utilize dual polarization.⁵⁸ Use of dual polarization is not possible in the Ka-band, because of the impact of rain depolarization of the Ka-band signal. Operation of such LEO MSS feederlinks at Ka-band would thus result in extremely inefficient use of spectrum.

The spectrum requirements for the 20/30 GHz are already extensive, including the 2,000 MHz recently proposed by the

⁵⁷ See Application for Membership and Comments of LOSS, CC Docket No. 92-297, at 6 (filed Mar. 17, 1994).

⁵⁸ The increase in LQP's feeder link requirement above that requested in its initial application is a function of increasing the number of beams from six to 16, in order to facilitate sharing with other CDMA systems

Commission for use by LMDS, FSS systems, the recently proposed Teledesic low-earth orbit system, as well as the feeder links requested by TRW, Inc. and Motorola. If the Commission faced the need to provide a total of 1200-1600 MHz for MSS feeder links in this band on a dedicated basis, its task of identifying technical means of accommodating a variety of services in the 28 GHz band would be virtually impossible. Accordingly, the Commission should make available feeder links for MSS LEO systems below 15 GHz.

H. The Commission Has Proposed an Appropriate Approach to RR 2613.

As the Commission points out, RR 2613 "imposes various coordination obligations on LEO operators with respect to GSO fixed-satellite systems operating in the same frequency band." NPRM, ¶ 73. The NRC proposed an appropriate and pragmatic three-step process to applying RR 2613, which would clarify the responsibilities of the operators of both LEO and GSO satellites, and prevent non-geostationary satellites from being subjected to undue restrictions. LQP supports the NRC's proposal and agrees with the Commission's proposal to adopt only a general obligation to coordinate in Part 25 of the Commission's Rules.

IX. THE COMMISSION SHOULD LICENSE MSS LEO OPERATORS AS PRIVATE MOBILE RADIO SERVICE PROVIDERS AND NON-COMMON CARRIERS.

New Section 332 of the Communications Act requires the Commission to determine whether a specific mobile radio service

should be classified as "commercial mobile radio service" ("CMRS"), as a private mobile radio service, or as a combination of both. Accordingly, the Commission has sought comment on the "regulatory classification" for MSS Above 1 GHz. NPRM, ¶¶ 79-81.

This issue can be quickly resolved. Section 332 and the Commission's own recent action in the rulemaking to implement that section have pointed the way to the correct approach. If a satellite carrier merely makes space segment capacity available to one or more entities, which in turn provide service to end users, the satellite carrier should be treated as a private carrier. Entities reselling MSS capacity should be regulated in accordance with statutory requirements depending upon the nature of service offered. This approach permits maximum flexibility in provision of space segment capacity, and also enables subscribers to benefit from the protections in Title II of the Act.

Section 332 defines CMRS as having three characteristics: provision of service to the public, for profit, with interconnection to the public switched network.⁵⁹ A commercial mobile service provider is defined as a common carrier. 47 U.S.C. § 332(c)(1). A provider which does not offer "commercial

⁵⁹ New Section 332(d) of the Communications Act defines "commercial mobile service" as a mobile service "that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public." "Interconnected service" is defined as "service that is interconnected with the public switched network." 47 U.S.C. § 332(d)(1).

mobile service" is considered a "private mobile service" provider, and is deemed a non-common carrier. Id. § 332(c)(2).

The Commission recently issued its decision in its rulemaking implementing Section 332. Implementation of Sections 3(n) and 332 of the Communications Act, FCC 94-31 (released Mar. 7, 1994) (CMRS Order). The Commission discussed its prior classification of satellite systems as common carriers or private carriers, and noted that this treatment generally squared with the dichotomy which Congress had adopted. In short, the common vs. private carrier determination turned on whether service was provided directly to end users. CMRS Order, ¶¶ 106-109. For example, the Commission noted that it had deemed geostationary MSS a common carrier service because its sole licensee, AMSC, was authorized to provide space segment capacity directly to end users through its own earth stations. And, the Commission had allowed "Little LEO" space station licensees to operate as common carriers when offering service directly to end users, or as private carriers when providing space segment capacity to another carrier or carriers on a non-common carrier basis. Id., ¶ 109.

Accordingly, the Commission adopted a new rule which codified this approach. Section 20.9(a)(10) defines as CMRS:

"Any mobile satellite service involving the provision of commercial mobile radio service (by licensees or resellers) directly to end users, except that mobile satellite licensees and other entities that sell or lease space segment capacity, to the extent that it [sic] does not provide commercial mobile radio service directly to end users, may provide space segment capacity to commercial mobile radio service providers on a non-common carrier basis, if so authorized by the Commission."

This functional approach, which determines classification from the perspective of whether commercial mobile service is offered directly to end users, is sound and should be applied to MSS Above 1 GHz. Satellite systems which merely offer space segment capacity to other carriers would qualify as private carriers and not be regulated as common carriers. If operators offer commercial mobile service to end users, they would be regulated as CMRS providers.⁶⁰

There are substantial additional reasons to apply this approach to MSS Above 1 GHz. First, the Commission has followed a policy of allowing satellite systems to tailor their business plans to their respective customer bases. See NPRM, ¶ 9. The proposed CMRS classification based on service to end users is consistent with that policy. That is, an MSS licensee may structure its business to provide end user service or to allow other carriers to provide end user service. Thus, an MSS licensee may conclude that allowing existing terrestrial carriers to serve end users with an in-place network would facilitate better service to the public. On the other hand, it may attempt to set up its own terrestrial or other delivery system.

⁶⁰ This approach is also consistent with the brief legislative history of Section 332(c)(5), which states, "The Commission may continue to use its existing procedures to determine whether the provision of space segment capacity to providers of commercial mobile services shall be treated as common carriage. Under Section 332(c)(1)(A), however, the provision of space segment capacity directly to users of commercial mobile services shall be treated as common carriage." Conference Report, H.R. Rep. 103-213, at 494 (1993).

Second, there is no reason why the Commission should depart from Congress' approach in Section 332. Congress' objective was to achieve parity among radio services which offered similar services, but it nowhere compelled a provider in a particular service to hold itself out as a common carrier. Forcing all LEO providers to be regulated as CMRS providers would undermine Congress' approach.

Third, forcing all LEO providers to be regulated as common carriers would prevent them from negotiating relationships with particular "gateway" systems or other terrestrial service providers which facilitate service and advantage subscribers. Instead, they would have to offer service to any and all terrestrial carriers that sought to purchase capacity, which would encourage technically inefficient proliferation of gateways for many terrestrial service providers. Partnerships between satellite and terrestrial-based systems offer the most efficient and cost-effective way to introduce LEO service.

Fourth, permitting the entity offering space segment capacity to choose private carrier status does not threaten in any way the protections the Act affords to end users. End users may still enjoy full Title II common carrier protections through service from carriers which offer CMRS.

The Commission's approach is, in sum, fully consistent with the language of Section 332, Congress's intent, and the Commission's historic treatment of satellite systems. Section 20.9(a)(10) is thus a suitable framework for classifying LEO

services.

The present language of Section 20.9(a)(10), however, is confusing in that it appears to base the dividing line as to whether a non-common carrier service is involved on affirmative grant of non-common carrier authority by the Commission. This confusion is unnecessary since classification of a service as CMRS or private service turns on how it is offered. The Commission did not adopt such an authorization procedure for other mobile services, and need not do so here. Section 20.9(a)(10) should be shortened and clarified to define CMRS as including:

"Any mobile satellite service offering the provision of commercial mobile radio service directly to end users, except that mobile satellite licensees may provide space segment capacity to other parties on a non-common carrier basis."

- X. THE TERMS OF THE MSS SYSTEM LICENSE SHOULD PROVIDE BLANKET AUTHORITY TO LAUNCH THE NUMBER OF SATELLITES NEEDED TO COMPLETE A CONSTELLATION AND PROVIDE SPARES.

LQP supports the Commission's policy of issuing to each LEO MSS system a "blanket" authorization to construct, launch and operate "a system consisting of a specified number of technically identical space stations." NPRM, ¶ 82 (footnote omitted); see Proposed 47 C.F.R. § 25.143(a). LEO MSS systems are designed as constellations of satellites, and so, it is appropriate to treat each proposed constellation as a unit for licensing. Moreover, it would be burdensome and costly for both applicants and Commission Staff to require individual applications for

construction, launch and operational authority for each LEO satellite.

LQP also supports the Commission's proposed policy on licensing a specified number of in-orbit spare satellites. NPRM, ¶ 82; see Proposed 47 C.F.R. § 25.143(d). Permitting licensees to launch spares will expedite replacement of failed satellites and will limit impairment in service as a result of satellite failures. The proposed post hoc certification procedure for placing an in-orbit spare into operation is also justified because (1) the "authorization" for an in-orbit spare would have already been processed by the Commission under the rules for this service and (2) the procedure avoids service degradation which might arise as a result of delays in processing a replacement satellite application.

The Commission can improve its "blanket authorization" policy by taking several actions: (1) granting a blanket authorization for launch of an entire operating constellation; (2) allowing in-orbit spares to be turned on; and (3) clarifying the policy on license modifications.

A. The Commission Should Grant a Blanket Authorization for a Constellation of Operating LEO Satellites.

Except for in-orbit spares, the proposed rules do not make clear what constitutes a "replacement" satellite, for which the pre-launch certification procedure is required. See NPRM, ¶ 82; Proposed 47 C.F.R. § 25.143(c). Based on the Commission's description in the text of the NPRM, a "replacement" satellite

could replace an in-orbit satellite which fails or an "authorized" satellite lost during launch.⁶¹

However, for lost-on-launch satellites, the Commission's proposed rules incorporate an unnecessary redundancy. Until the licensee establishes its authorized constellation of operating satellites, the proposed filings for lost-on-launch satellites would merely repeat the information provided to the Commission in the licensee's required annual reports. See Proposed 25 C.F.R. § 25.143(e).

As long as the Commission retains the annual reporting requirements for MSS Above 1 GHz licensees, there is no need to apply the replacement certification requirement to launches until after the licensee's full constellation is operational. Accordingly, LQP recommends that the Commission restrict certification of "replacement" satellites to those satellites launched to replace in-orbit failures from the full constellation. The MSS "blanket authorization" would thus allow a licensee to construct and launch a constellation of operating satellites, and so, would be consistent with and preserve the efficiency of the blanket licensing approach.

⁶¹ In Paragraph 82, the Commission states that a blanket MSS LEO license authorizes the licensee:

to replace both satellites lost during launch and older satellites retired before the end of the ten-year [license] period with technically identical counterparts provided that the licensee certifies to the Commission, at least 30 days prior to launch, that the replacement station is technically identical to those authorized and that there is no net increase in the number of operating satellites.

B. Spare Satellites Should Be Allowed to Operate.

The Commission has proposed that MSS Above 1 GHz licensees would be granted authority to launch a specified number of in-orbit spare satellites which "would remain inactive until needed." NPRM, ¶ 82. LQP supports the Commission's proposal for launch of in-orbit spares, but strongly recommends that system licensees have the authority to operate such satellites.

Operating spare satellites would not increase the capacity of a CDMA system since the spare satellites will not necessarily be over an area requiring capacity. However, operational spare satellites could provide useful path diversity for those CDMA systems employing diversity as a means of propagation impairment mitigation. This would improve reliability and service to the public. As long as the operator conforms to the PFD and EIRP limits established for MSS Above 1 GHz and other sharing criteria, spare satellites could be operated without affecting coordination parameters with other CDMA MSS systems and/or other services operating in the bands.

Because most of the proposed LEO satellite systems consist of simple repeater satellites, there is no disadvantage to allowing spare satellites to be active, and there are substantial service benefits to permitting their operation. Accordingly, LQP recommends that the Commission modify Proposed Section 25.143(d) to read as follows:

(d) In-Orbit Spares: Licensees need not file separate applications to operate technically identical in-orbit spares authorized as part of the blanket license

pursuant to paragraph (a) of this section. However, within 10 days of so doing, the licensee shall certify to the Commission that it has replaced a failed satellite with an in-orbit spare.

C. The Commission Should Clarify the Conditions on Modifying LEO Satellite Design.

The Commission should provide several clarifications to the conditions on modifying LEO satellite design proposed in the NPRM. See NPRM, ¶ 82. The Commission has stated that "[r]equests for authority to construct additional or non-conforming LEO satellites would be treated as requests for license modification." Id.

With respect to the term "additional," and in keeping with LQP's previous proposals in this section, the Commission should clarify that it is referring to operational satellites in excess of the number in the licensee's authorized LEO constellation and in-orbit spares. Thus, until the full constellation (plus authorized in-orbit spares) is operational, there would be no "additional" satellites in excess of the specific number of satellites and spares authorized.

Second, with respect to the term "non-conforming," the Commission should clarify that a "non-conforming" satellite is one which incorporates a modification which would result in modification of the existing coordination parameters and/or terms and conditions of the station authorization.⁶² To require Big

⁶² The Commission has not proposed a separate rule for such modifications. LQP's proposed clarification would fall within the language of Section 25.117(a) of the Commission's Rules which

LEO licensees to go through a modification application procedure for each update of a specific satellite feature, such as modified propulsion tanks, could substantially slow down the process of replacing failed satellites.

By allowing a licensee to incorporate modifications into replacement satellites which do not affect coordination with other systems or services, the Commission can promote technical innovation in satellite design and provide licensees with some flexibility in operating the system. If the Commission declines to accept this modification, then it should establish procedures to ensure a rapid consideration and approval process for MSS satellite upgrades.

XI. THE PROPOSED IMPLEMENTATION MILESTONE AND SYSTEM REPLACEMENT RULES FOR MSS ABOVE 1 GHZ SHOULD BE REVISED TO REFLECT THE REALITIES OF SATELLITE CONSTRUCTION AND LAUNCH SCHEDULES.

Construction milestones for satellite services have been used by the Commission to ensure that licensed systems are implemented in a timely manner. In so doing, the Commission promotes construction of the maximum number of operational systems at the earliest possible time to the ultimate benefit of users and the public interest. See, e.g., Radiodetermination Satellite Service, 104 FCC 2d 650, ¶ 25 (1986); Land-Mobile Satellite Service, 4 FCC Rcd 6041, ¶ 118 (1989).

requires an application for any modification to a satellite radio station "which affects the parameters or terms and conditions of the station authorization." 47 C.F.R. § 25.117(a).

LQP recognizes the importance of setting implementation milestones for achieving two goals for MSS -- ensuring that: (1) satellite licensees are building their systems in a timely manner and (2) spectrum is not held by licensees which are unwilling or unable to proceed with their proposals. See NPRM, ¶ 84. But, any such schedule can serve its desired purpose only if it is consistent with the realities of constructing, launching and operating a constellation of satellites.

The Commission has proposed (NPRM, ¶¶ 82-84) rules establishing the following schedule for implementation of first-generation MSS Above 1 GHz satellite systems and replacement by second-generation systems:

<u>Time After Grant</u>	<u>License Term</u>	<u>Milestone</u>
First Quart. 1995		Grant of license
Year 1 after grant		Commencement of construction on first 2 satellites
Year 3 after grant		Commencement of construction on all satellites
Year 4 after grant		Completion of construction on first 2 satellites
Year 5 after grant (expected)	Year 1 of operating license	First satellite commences transmissions
Year 6 after grant	Year 2 of operating license	Completion of construction of all satellites
Year 12 after grant	Year 7 of operating license	Window (3 mos. before to 1 mo. after anniversary) for filing system replacement applications
Year 15 after grant	Year 10 of operating license	FCC has acted on replacement applications and system replacement is implemented

These proposed rules should be made more consistent in several respects with other proposed rules for MSS Above 1 GHz and with the realities of developing such a satellite system. Accordingly, LQP recommends clarifications to and modifications of the implementation milestones and replacement schedules for MSS Above 1 GHz systems.

A. Implementation Milestones and Eligibility Requirements Must Be Made To Dovetail In A Consistent Manner.

The interaction of the proposed milestones with the proposed eligibility standards for MSS is not consistent with the goals underlying these two sets of rules. Accordingly, the milestone rules should be clarified now to ensure confusion does not arise during implementation of the MSS systems.

1. Coverage Standards. The Commission has indicated that an MSS license may be rendered null and void if a sufficient number of satellites to meet the technical requirements for the service (e.g., global and U.S. coverage standards) are not launched. NPRM, ¶ 36. The Commission did not, however, set a deadline for when such an evaluation would occur. And, as indicated in the time line above, the Commission does not plan to require completion of construction for all system satellites until approximately two years into the 10-year license term, nor has it specified milestones for launch and commencement of transmission.

LEO MSS systems are designed to provide coverage through a constellation of satellites, the configuration and number of which vary from system to system. On the one hand, the Commission cannot expect a system operator to meet the coverage (i.e., eligibility) standards until it has had the opportunity to launch its complete system. On the other hand, no milestone has been specified for launch and operation of the entire system, and

so, there is no definite point at which a system license could be evaluated for forfeiture.

To resolve this ambiguity, LQP recommends that the Commission adopt a date certain by which eligibility to maintain a system license would be evaluated. For example, by three years into the 10-year operating term (or, approximately 7 years after grant), each system should be required to have completed placing its proposed constellation into operation, or, to demonstrate how its existing constellation meets the eligibility standards for MSS Above 1 GHz systems. By adopting such a rule, the Commission will provide an incentive for licensees to complete their systems, will have a time certain for evaluating compliance and also provide operating systems definite information on the environment for planning replacement systems.

2. Demonstration of Progress. As noted above, the Commission has provided milestones for licensees to demonstrate initiation of "construction" of satellites. According to the Commission, "construction" has "traditionally" consisted simply of "the execution of a non-contingent construction contract." NPRM, ¶ 85.

LQP strongly recommends that the Commission modify its "traditional" demonstration of what constitutes a sufficient showing for purposes of implementation milestones. As the Commission is well aware, entering into a "non-contingent construction contract" does not require a licensee to implement physical construction nor does it necessarily require

expenditures of funds toward physical construction. See Geostar Positioning Corp., 6 FCC Rcd 2276, 2278 (CCB 1991).

Unless the Commission requires demonstration of actual progress toward construction of satellites, its implementation milestones serve no useful purpose and would not necessarily encourage licensees to implement their systems promptly. The Commission can facilitate strict milestones by requiring that at each milestone, an MSS licensee present evidence of actual satellite design and financial expenditure toward satellite construction.

LQP recommends that the Commission's implementation milestones for MSS Above 1 GHz be tied to demonstrations of actual construction milestones, such as preliminary satellite design review, critical satellite design review, placing orders for high reliability parts, as well as actual expenditures toward construction. In keeping with this strict implementation milestone policy, LQP recommends that proposed Section 25.143(e) (2) be revised as follows:

(2) All operators of 1.6/2.4 GHz mobile-satellite systems shall, within 10 days after a required implementation milestone as specified in the system authorization, certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. Certification of meeting a milestone shall include specific information on the progress of satellite design, ordering of system parts, and financial expenditures toward satellite construction. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or persons with knowledge thereof) to demonstrate that the milestone has been met.

3. Financial Qualifications. In discussing its financial qualification standard (NPRM, ¶ 27), the Commission states that such showing must demonstrate evidence of "uncommitted current assets or irrevocably committed debt or equity financing sufficient to meet the estimated costs of constructing all planned satellites, launching them, and operating the system for the first year." As the Commission notes, the costs for the first year of operation "are to be calculated for the year following the launch of the first satellite in the system," NPRM, at 16, n.57, which, under the Commission's proposed time line, would fall during about the fifth year after grant of the license. All satellites are to be constructed by the sixth year after grant.

The Commission is effectively proposing that applicants have on hand at the time of application sufficient uncommitted funds to cover costs which may be incurred over the next six years. As a practical matter, no business would keep such funds on hand. As discussed supra in Section III. D, the Commission needs to clarify that it is using the domestic-fixed satellite service financial qualification standard, not the language in the text of the NPRM, language which would, in any event, be contrary to sound business practice.

B. The Commission Must Establish a Long Lead Time for Replacement of MSS Above 1 GHz Systems.

As the Commission is well aware, processing applications to construct and implement a low-earth orbit satellite system is a

lengthy procedure. Applications for the current processing group were cut-off on June 3, 1991. Under the Commission's proposed milestone schedule, none of the pending systems would be required to have completed construction and launch of the satellites before the year 2000 at the earliest (assuming grant of licenses at the end of 1994).

In stark contrast to this decade-long time period between filing applications and completion of implementation of a system, the Commission has proposed a three-year processing and implementation schedule for replacement systems. NPRM, ¶ 83. According to the Commission, having MSS operators file replacement applications three years before the end of the 10-year operating term "will provide the Commission with ample time to act upon replacement system applications and the licensee with ample time to implement its next generation system." Id. (footnote omitted).

Obviously, implementation alone requires more than three years' preparation.⁶³ Even if review of replacement applications were pro forma only, lead time substantially longer than three years must be established for this milestone to ensure continuity

⁶³ The Commission apparently modeled this rule after a similar rule adopted for the "Little LEOs." See Non-Voice, Non-Geostationary Mobile-Satellite Service, 8 FCC Rcd 8450, 8454, ¶ 16 (1993) (Little LEO Report and Order). Since at the time the rules were adopted the Little LEO systems involved at most 24 satellites, the rule may not translate to "Big LEO" systems.

of MSS service and timely introduction of replacement systems.⁶⁴ At the same time, LQP recognizes that any replacement schedule must accommodate the Commission's concern that it be allowed to consider "intervening circumstances" in granting replacement authority. Little LEO Report and Order, 8 FCC Rcd at 8454, ¶ 17.

Another concern is that the proposed 10-year license term is not at all consistent with the lifespans of LEO satellites. For example, GLOBALSTAR satellites have an expected lifespan of 7.5 years. LQP would plan to replace the first generation satellites with updated second generation satellites. From a technical standpoint, it makes no sense to replace the first generation with "technically-identical" satellites. Moreover, when the second-generation system is being built, LQP would plan to incorporate technical upgrades to improve service. The Commission's proposal would, in fact, discourage improvements in satellite capabilities contrary to the public interest.

Taking into account these concerns, LQP recommends that the Commission adopt a rule for MSS Above 1 GHz which moves back the replacement application window to 90 days before and 30 days after the fifth anniversary of each licensee's 10-year operating term. The Commission should consider each licensee's replacement application individually because, given the inevitable variation in construction schedules for applicants, it is likely that

⁶⁴ In fact, the Commission may soon be required to establish a procedure for processing second-generation MSS satellite systems which would use spectrum at 2 GHz. See Application of CELSAT, Inc. (filed April 8, 1994); Application of Personal Communications Satellite, Inc. (filed April 7, 1994).

timing of the window period will vary greatly from licensee to licensee. That would make blanket acceptance of applications and comparative processing of applications (if any)⁶⁵ simply impracticable, and would enable slower constructing licensees to delay initiation and implementation of the replacement process.

With respect to the procedure for granting replacement system applications, the Commission should apply its existing policy in the satellite services of granting licensees authorization for replacement systems if the frequencies remain available for use by such systems. NPRM, at 42 n.134; see Little LEO Report and Order, 8 FCC Rcd at 8454, ¶ 17.

XII. LQP SUPPORTS IN PRINCIPLE THE PROPOSED REQUIREMENTS FOR ANNUAL REPORTS AND DISTRESS AND SAFETY COMMUNICATIONS.

Annual Reporting. LQP supports in principle the proposed annual reporting requirements for MSS Above 1 GHz systems in Section 25.143(e). It recommends that the information obtained regarding construction of satellites be used in conjunction with

⁶⁵ In the event that the Commission were to consider accepting competing applications for replacement systems, LQP would recommend strongly -- as did STARSYS and ORBCOMM in the Little LEO proceeding -- that the Commission adopt a rule codifying a replacement expectancy for Big LEO licensees. See Little LEO Report and Order, 8 FCC Rcd at 8454, ¶ 17. Big LEO systems are even more expensive and complicated to construct than Little LEO systems, and their subscribers are entitled to expect continuity of service. Moreover, as the Commission has recognized, these systems will operate on the basis of substantial investment from foreign sources. Some assurance of continuity would assist licensees in obtaining and retaining such investments.

the information obtained for certification of implementation milestones to monitor the progress of system construction.

Distress and Safety. LQP also supports in principle the proposed Section 25.143(f) implementing Sections 321(b) and 359 of the Communications Act. Section 321(b) and 359 impose certain distress and safety communication obligations on all licensed radio stations. Specifically, Sections 321(b) and 359 mandate that licensees give priority to radiocommunications or signals relating to ships in distress and prohibit a charge for the transmission of maritime distress calls and related traffic.

Globalstar will provide priority to radiocommunication signals to ships in distress within U.S. territorial waters. Due to the nature of CDMA modulation, this priority can be established within a Globalstar channel without having to cease all other transmissions within the channel. Globalstar can provide this service to maritime users who choose to obtain a Globalstar user terminal. Calls can be forwarded to a U.S. Government designated maritime agency or Coast Guard unit.

MSS licensees should not be required to provide search and rescue or disaster response communications as a general service offering. Requiring MSS licensees to configure their systems to include particularized safety and distress communications capability could substantially increase costs. The Commission should follow its decision in the Little LEO proceeding where it determined that no requirements beyond Sections 321(b) and 359

should be imposed on the new service. Little LEO Report and Order, 8 FCC Rcd at 8458.

XIII. LQP WILL WORK WITH THE COMMISSION TO COORDINATE THE GLOBALSTAR SYSTEM INTERNATIONALLY.

In the NPRM, the Commission addresses the need for the LEO MSS Systems above 1 GHz to cooperate fully in ensuring that systems are coordinated pursuant to the requirements of the International Telecommunication Union, with INTELSAT and with INMARSAT. In addition, the Commission highlights the responsibility of all U.S. licensees "to meet both their international obligations and any national requirements imposed by other licensing administrations regarding operations within their territories." NPRM, ¶ 92.

LQP has cooperated fully with the Commission in the preparation and submission of both Appendix 4 and Appendix 3 material required for advance publication and coordination of satellite systems. These submissions have been sent forward to the ITU, and LQP stands ready to participate in any coordinations that may be required. LQP agrees with the Commission that systems may be licensed, and indeed launched, prior to completion of such coordinations. As LQP seeks to proceed to construct, launch and implement the Globalstar system in a timely manner, and will be actively participating in the coordination process, LQP may seek to commence service prior to conclusion of coordination, if necessary.